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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Marcus Eh

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7590

03/15/2011

ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P.

1300 19TH STREET, N.W.

SUITE 600

WASHINGTON,, DC 20036

EXAMINER

BROWN, COURTNEY A

ART UNIT

PAPER NUMBER

1617

MAIL DATE

DELIVERY MODE

03/15/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,781	Applicant(s) EH ET AL.	
	Examiner COURTNEY BROWN	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement of Receipt/Status of Claims

This Office Action is in response to the amendment filed January 10, 2011. Claims 1-7 and 15-27 are pending in the application. Claims 8-14 have been cancelled. Claims 15-27 are newly added. Claims **1-7 and 15-27** are being examined for patentability.

Withdrawn Rejections

Applicant's amendments and arguments filed January 10, 2011 are acknowledged and have been fully considered.

The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application. Claims **1-7** were rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US Patent 6,627,763 B2) **and /or** Anderson et al. (**US Patent 6,207,857 B1**,) in view of Paget et al. (AU-B-71940/94). This rejection has been withdrawn in view of Applicant's amendment.

New Rejection(s) Necessitated by the Amendment filed on January 10, 2011

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

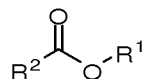
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7 and 15-27 are newly rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US Patent 6,627,763 B2, of record and referred to as '763) and /or Anderson et al. (US Patent 6,207,857 B1, referred to as '857, of record) in view of Paget et al. (AU-B-71940/94, of record) and further in view of Schemenger et al. (WO03/017952 A2, see equivalent document, US2004/0098815 A1), Clausen et al. (US 5,879,669) and Tokosh et al. (US 5,895,780).

Applicant's Invention

Applicant claims a method for the spontaneous release of a fragrance having the steps: A.) providing a fragrance precursor compound of formula I;



Compound of formula I

B.) producing a formulation which comprises the compound of formula I and a medium, such that the compound of formula I is stable in the formulation, wherein said medium is acidic and oxidative and has a water content of less than or equal to 10 wt.% relative to the total mass of the medium; and

C.) treating said formulation such that the compound of formula I disintegrates and the fragrance is released spontaneously based on a rapid rate of hydrolysis of the compound of formula I.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

'763 teaches enol ester compounds with protected hydroxy groups as precursors for organoleptic agents, such as fragrances, and masking agents and for antimicrobial agents. When activated, the compounds of formula (Ia) are cleaved and form one or more organoleptic and/or antimicrobial compounds (abstract). The compounds are virtually odorless under room temperature, atmospheric conditions and about 20 to 100% relative humidity. However, under activating conditions, they are cleaved and one or more active compounds with organoleptic and/or antimicrobial properties are

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generated. '763 teaches that the phrases "activating conditions" or "activated" are used interchangeably and are intended to mean those conditions which lead to cleavage of the compounds and the formation of "active," i.e., organoleptic and/or antimicrobial agents. For example, the following activating conditions lead to cleavage of compounds of formula (Ia) and to formation of the desired active compounds: skin bacteria, especially axilla bacteria; enzymes such as protease or lipase; elevated temperature; acidic or alkaline pH-values; and/or light (column 3, lines 4-20). The compounds of formula (Ia) may be employed as fragrance precursors in a variety of compositions, including, for example, personal care products, laundry products, cleaning compositions, pet care products and environment scents such as air fresheners (column 5, line 65 bridging to column 6, lines 1-5, and column 10, line 58 bridging to column 11, lines 1-7, limitation of instant claims 7, 15 and 16). When the compounds are employed as fragrance precursors and precursors for odor masking agents, they are present in such compositions individually in an amount effective to enhance or to mask the characteristic odor of a material. More commonly, however, the compounds are mixed with other fragrance components in an amount sufficient to provide the desired odor characteristics. Due to the in situ generation of the active compounds, '763 teaches that the desired effect is prolonged and the substantively on different substrates is enhanced (column 6, lines 8-18). Upon cleavage, the compounds form lactones and optionally aldehydes (column 3, lines 20-23 of Anderson et al.) such as decanal, dec-9-enal, dec-4-enal, and octanal as listed on page 10 of the instant specification (compounds of instant formula I, column 6, lines 25 bridging to column 7, line 29 of '763) and/ or

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ketones (column 3, lines 20-23 of Anderson et al.) such as carvone and acetophenone as listed on page 11 of the instant specification (compounds of instant formula I, column 6, lines 25 bridging to column 7, line 29 of Anderson et al.). In Example 55 (column 22, line 51 bridging to columns 23-24). '763 teach examples for use of the precursor compound oils that resulted from Examples 16-50 in amounts less than 1% (limitation of instant claim 20). Example 55 also teaches the use of said compounds as fragrances in antiperspirants, delayed released fragrances and in a fabric softener wherein the precursor compound is dispersed (limitation of instant claims 17, 18 and 21). In example 51, '763 teach a test cloth to which one or more compounds of Examples 16-50 had been added (see column 21, lines 65 bridging to column 22, lines 1-7, limitation of instant claim 19).

'857 teaches enol ester compounds of formula I :



as precursors for organoleptic and antimicrobial compounds which are generated in the presence of skin bacteria, enzymes or acidic or alkaline conditions (see abstract and column 1, lines 55-61 and column 2, lines 1-5). The precursor molecules of formula I supply different active compounds simultaneously or successively (column 1, lines 39-42). '857 also teaches specific examples wherein the precursor compounds were dissolved

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of that of '763 and '857 is that 763 and '857 do not expressly teach the enol ester of instant compound I. However, the use of the enol ester of instant compound I was known in the prior art. For example, Paget et al. teach a process for perfuming fabrics wherein said process is characterized in that a detergent composition contains the compound of instant formula I wherein $R^2=Y$ which represents a C7-C24 linear or branched or unsaturated alkyl radical and $R^1=R$ which represents an alkylidene radical derived from a fragrant aldehyde (i.e., a radical of the enol form of an aldehyde of instant application) or an alkylidene radical derived from a fragrant ketone with 5-18 C atoms (i.e., the radical of a ketone having 10 or more C atoms of instant application) (see claims 1-7 of Paget et al.).

Another difference between the invention of the instant application and that of that of '763 and '857 is that 763 and '857 do not expressly teach: a hair coloring composition comprising water, hydrogen peroxide, an acid, a thickener, an emulsifier, a preservative, a complexing agent, a silicone and a solvent (limitation of instant claims 21 and 22) ; a composition comprising ammonia ,water, a thickener, an emulsifier,

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dyestuff, solvent, a complexing agent, a stabilizer and a preservative (limitation of instant claims 22 and 25) and a hand soap comprising sodium tallowate and sodium cocoate (limitation of instant claims 4 and 27). However, compositions comprising these components were known in the prior art. For example, Schmenger et al. teach coloring agents for keratin fibers comprising water, hydrogen peroxide, an acid, a thickener, an emulsifier, a preservative, a complexing agent, a silicone and a solvent (see [0021-0022] and [0033-0040]). Clausen et al. teach the use of ammonia, water, a thickener, an emulsifier, dyestuff, solvent, a complexing agent, a stabilizer and a preservative in hair fixing compositions (see claims and examples). Tokosh et al. teach a soap comprising sodium tallowate and sodium cocoate (see claim 4).

Regarding the amount of water present in the instant sour and oxidative medium, **763** teaches water in amounts less than 10%. This includes amounts all the way to 0% (see example 55a and 55b, column 23 bridging to column 24, lines 1-44). One of ordinary skill in the art would have been motivated to utilize water in low amounts based on the teachings of **763**. It would have been obvious to one of ordinary skill in the art at the time of the invention to engage in routine experimentation to determine optimal or workable ranges for water that produce expected results. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F. 2d 454, 105 USPQ 233 (CCPA 1955).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of '763 and/or '857 with Paget et al. to arrive at the claimed method. Each reference teaches the use of enol ester compounds that are similar in structure and used as fragrance precursors. The claims would have been obvious because the substitution of one known enol ester compound for another enol ester compound would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of '763 and/or '857 with Paget et al. and Schemenger et al. to arrive at compositions comprising a hair coloring composition comprising water, hydrogen peroxide, an acid, a thickener, an emulsifier, a preservative, a complexing agent, a silicone and a solvent. '763 and '857 teach that their compounds of formula (Ia) may be employed as fragrance precursors in a variety of compositions, including, for example, personal care products, laundry products, cleaning compositions, pet care products and environment scents such as air fresheners. Schemenger et al. teach that water, hydrogen peroxide, an acid, a thickener, an emulsifier, a preservative, a complexing agent, a silicone and a solvent are well known components of hair coloring compositions. One of ordinary skill in the art would have combined the teachings of the aforementioned references with the

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expectation of formulating a composition that has sustained release odorants used to mask or attenuate undesirable odors or to provide additional odors not initially present (see column 10, lines 58-67 of '763).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of '763 and/or '857 with Paget et al. and Clausen et al. to arrive at compositions comprising a composition comprising ammonia ,water, a thickener, an emulsifier, dyestuff , solvent, a complexing agent, a stabilizer and a preservative. '763 and '857 teach that their compounds of formula (Ia) may be employed as fragrance precursors in a variety of compositions, including, for example, personal care products, laundry products, cleaning compositions, pet care products and environment scents such as air fresheners. One of ordinary skill in the art would have combined the teachings of the aforementioned references with the expectation of formulating a composition that has sustained release odorants used to mask or attenuate undesirable odors or to provide additional odors not initially present (see column 10, lines 58-67 of '763).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of '763 and/or '857 with Paget et al. and Tokosh et al. to arrive at compositions comprising a hand soap comprising sodium tallowate and sodium cocoate. '763 and '857 teach that their compounds of formula (Ia) may be employed as fragrance precursors in a variety of compositions, including, for example, personal care products, laundry products, cleaning compositions, pet care products and environment scents such as air fresheners. Tokosh et al. teach that sodium tallowate

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and sodium cocoate are well known components of soap compositions. One of ordinary skill in the art would have combined the teachings of the aforementioned references with the expectation of formulating a composition that has sustained release odorants used to mask or attenuate undesirable odors or to provide additional odors not initially present (see column 10, lines 58-67 of '763).

With regards to the limitation of instant claims **24 and 27**, wherein the fragrance precursor compound exhibits one month stability in said composition of at least 97% and wherein 91-100% of said fragrance precursor has hydrolyzed to aldehydes after five minutes, Tehran et al. do not provide data for these limitations but since the composition is the same as instantly claimed using the same components in the same amounts then these properties must also exist in the composition of the prior art compounds in the absence of evidence to the contrary. "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The U.S. Patent Office is not equipped with analytical instruments to test prior art compositions for the infinite number of ways that a subsequent applicant may present previously unmeasured characteristics. When as here, the prior art appears to contain the exact same ingredients and applicant's own disclosure supports the suitability of the prior art composition as the inventive composition component, the burden is properly shifted to applicant to show otherwise.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Response to Arguments

Applicant's arguments, filed January 10, 2011, with respect to the 103 rejection of claims 1-7 over Anderson et al. (US Patent 6,627,763 B2, referred to as '857) and /or Anderson et al. (US Patent 6,207,857 B1, referred to as '857) in view of Paget et al. (AU-B-71940/94) have been considered but are moot in view of the new ground(s) of rejection. However, the Examiner has addressed Applicant's arguments because the aforementioned references are used in the instant rejection.

Applicant argues that the Examiner has failed to present a *prima facie* case and that the Examiner has failed to cite a reference that discloses the claimed fragrance precursor. However, the Examiner disagrees with Applicant's argument because the secondary teaching of Paget et al. was joined to show that the use of the enol ester of instant compound I was known in the prior art.

Applicant further argues that the explanation of the motivation behind the rejection stated on page 8 of the Office Action shows that the Examiner has based the rejection solely on "enol ester compounds that are similar in structure" without establishing any underlying reason why one in this art would seek to use an enol ester having a structure different from those disclosed in the cited art. Specifically, Applicant argues that all of the references teach the use of their fragrance precursors for adding scents to laundered textiles in which the scent lasts for an extended time period. Applicant further argues that Anderson '763 and Anderson '857 are directed to a slow release of the fragrance. Thus, Applicant concludes that Anderson '763 and Anderson '857 only teach the slow sustained release of the fragrance and provide no teaching or suggestion of the spontaneous and rapid release by the rapid rate of hydrolysis of the compound of formula 1. However, the Examiner disagrees with Applicant's argument. As previously stated, the secondary teaching of Paget et al. was joined to show that the use of the enol ester of instant compound I was known in the prior art. The Examiner maintains the position because each reference teaches the use of enol ester compounds that are similar in structure and used as fragrance precursors, the instant

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claims would have been obvious and that the substitution of one known enol ester compound for another enol ester compound would have yielded predictable results to one of ordinary skill in the art at the time of the invention. With regards to Applicant's argument that Anderson '763 and Anderson '857 are directed to a slow release of the fragrance, Anderson '763, discloses an "in situ" generation of the active compounds and according to Webster's Online Dictionary, "In situ" means: in the natural or original position or place. According to Webster's Online Dictionary, "spontaneous": means: 1 : proceeding from natural feeling or native tendency without external constraint ; 2 : arising from a momentary impulse; 3 : controlled and directed internally ;4 : produced without being planted or without human labor; 5 : developing or occurring without apparent external influence, force, cause, or treatment and 6 : not apparently contrived or manipulated. Thus, the Examiner maintains the position that the "in situ" generation of the active compounds of Anderson et al. is a spontaneous event. Applicant appears to be confusing the word "spontaneous" with "instantaneous" but the two words do not have the same meaning. A spontaneous event can occur in any time frame while an instantaneous event occurs instantly. Regarding Anderson et al. teaching that the compounds of the invention provide a slow release of the active agents (Col. 6 at lines 21-22), it is the Examiner's position that the definition of spontaneous does not have the same meaning of "rapid or fast" but rather "proceeding from natural feeling or native tendency without external constraint" as disclosed by Webster. Thus, the Examiner concludes that Anderson '763 does disclose or suggest spontaneous release because Anderson et al. teach due to the in situ generation of the active compounds as instantly

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claimed and according to Webster's Online Dictionary, "In situ" means: in the natural or original position or place and "spontaneous": means: 1 : proceeding from natural feeling or native tendency without external constraint. It is duly noted that the claimed method of release and the composition of the prior art is the same as Applicant's. Thus, the skilled artisan would recognize that a composition is inseparable from its properties and when treated in the same manner as instantly claimed, the compounds will spontaneously release a fragrance.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney A. Brown whose telephone number is 571-270-3284. The examiner can normally be reached on 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun Sajjadi can be reached on 571-272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
Technology Center 1600
Group Art Unit 1617
/JANET L. EPPS -SMITH/
Primary Examiner, Art Unit 1633